Final Results for the *Kit for New Parents* Evaluation

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Acknowledgments

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Final Results for the *Kit for New Parents* Evaluation

Introduction

Over the past few decades, parenting education has become recognized as one of society's most valuable strategies to provide parents with the information and skills they need to promote their children's health and development. Research underscores the importance of a healthy pregnancy and effective parenting practices during early childhood to prepare a strong foundation for children's healthy development and readiness for school.

The *Kit* is a new model for parenting education.

Beginning in 2001, the First 5 California Children and Families Commission (First 5) produced and distributed the *Kit for New Parents*, a new model for large-scale parenting education. The *Kit* contains educational videos and written materials addressing prenatal care, early childhood development, nutrition, health, safety, childcare, discipline, and parenting resources. Currently produced in English and Spanish — and soon in Chinese, Vietnamese and Korean — the *Kit* is available to California's 500,000 new parents each year through prenatal care, hospitals, home visits, a toll-free telephone number, and other programs. The per-unit cost of the *Kit* is $17.50, including both production and distribution to local providers.

To guide policy decisions about the *Kit*, the First 5 Children and Families Commission selected the University of California Berkeley, Center for Community Wellness to evaluate the use and impact of the *Kit* during 2000–2003. This report summarizes the findings from the three major components of the evaluation: The Literature Review, the Impact Study, and the Process Evaluation, which included the Statewide Survey and the 10-County In-Depth Study. Each of these components is detailed in one or more separate documents referenced at the end of this report.

Parenting education models and research

Research and theoretical models from many fields — including adult education, health education, psychology, neuroscience, and communications — contribute to

our understanding of principles of effective parenting education. A review of the literature conducted as part of this evaluation identified three overarching principles. Effective parenting education should:

- Build on parents' needs, interests and learning styles.
- Tailor the educational messages and methods to engage and motivate parents.
- Work within parents' social environments to support learning and successful parenting practices over time.

Parenting education programs use a wide variety of approaches from educational materials to parenting classes and home visits, and address a range of issues from pregnancy to child development and behavior, maternal and child health, relationships and communication skills, discipline, balancing work and family, and access to local resources. To date, evaluations of parenting education programs — both "comprehensive" interventions offering home visits, classes, and support services, and materials-based interventions providing only educational materials with a brief orientation — have shown modest, positive results in improving parenting knowledge and practices. These studies suggest that extending these interventions to large populations could have a significant positive impact on the health and development of children and families.

Research Questions for the *Kit* for New Parents

To investigate the value of the *Kit* as a First 5 investment, this evaluation addressed the following overarching research questions:

A) How did the state and counties distribute the *Kit*? What were the challenges to effective distribution?

B) Did providers and parents use the *Kit* and find it helpful?

C) Did parents learn from the *Kit*?

D) Did parents make positive changes in their practices because of the *Kit*?

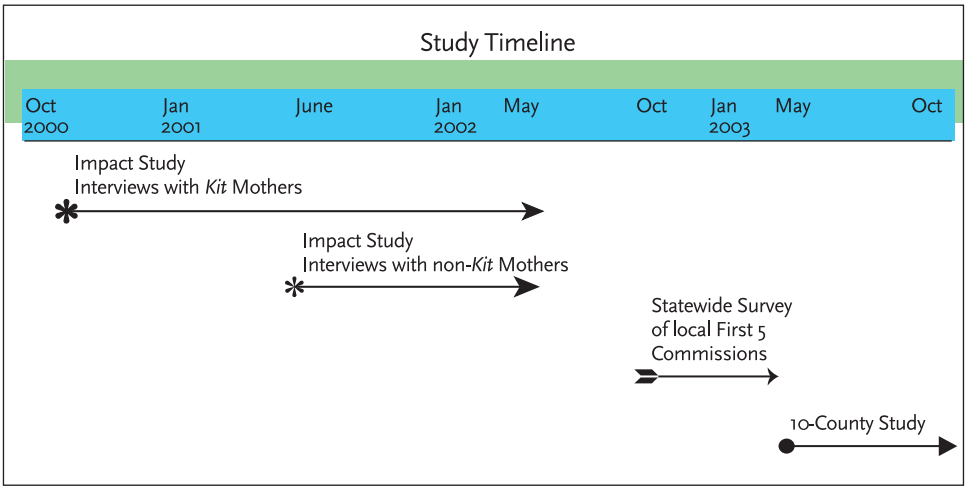
E) Did the *Kit* enhance parents' emotional well-being and confidence in parenting?

F) What would improve the *Kit* and its distribution?

Methods

An **Impact Study** was used to determine the use and effects of the *Kit*. In addition, a **Process Evaluation** was used to collect information on distribution and training issues (Statewide Survey), and to obtain in-depth information from providers and parents in 10 counties about the *Kit*, its use, and its perceived effects (10-County In-Depth Study).

The study timeline below shows when data were collected for the Impact Study, the Statewide Survey, and the 10-County In-Depth Study.



The Impact Study was a quasi-experimental, quantitative, longitudinal study. Data collection for this component of the evaluation began prior to the statewide distribution of the *Kit* by recruiting mothers from a variety of programs for the study and providing them with a pilot *Kit*.[1] Groups of mothers not receiving a *Kit* were subsequently recruited for the study. Overall, from October 2000 to May 2002, three waves of data collection were completed with mothers who received the pilot *Kit* and mothers recruited from similar programs who did not receive a *Kit*.

1 First 5 California initiated statewide distribution of the full *Kit* in November 2001. The pilot *Kit* used for the Impact Study was similar to the *Kit* distributed after November 2001, with the important exception that the pilot *Kit* did not include the video on discipline and the brochures were revised and reduced from 13 to 8.

The Process Evaluation's Statewide Survey consisted of interviews conducted with staff members who served as the *Kit* Coordinators in all of the 58 counties' local First 5 Commissions. Interviews for the Statewide Survey were conducted with First 5 *Kit* Coordinators across the state between November 2002 and February 2003. The purpose of the Statewide Survey was to collect information on distribution and training issues as part of the study's process evaluation.

The Process Evaluation's 10-County In-Depth Study took place from May to December of 2003. During that period, focus groups were held with parents and providers, and interviews were conducted with program administrators, to gather their experiences with and beliefs about the *Kit* and its impact.

The Impact Study

During the first phase of the evaluation, pilot *Kits* were distributed to mothers who were pregnant or who had recently given birth in nine California urban and rural counties — Alameda, Contra Costa, Del Norte, Lassen, Los Angeles, Modoc, Orange, Santa Clara and Tehama.

The pilot *Kit* (as is done for the current *Kit)* was packaged in a brightly colored box and contained parenting education materials in several different formats:

- A set of five videos on (1) prenatal/child health and nutrition, (2) early childhood development, (3) child safety, (4) quality childcare, and (5) early literacy (The discipline video was not included in the Pilot *Kit.*)
- 13 related brochures (these were later consolidated into the eight brochures included in the *Kit* currently distributed statewide)
- A *Parents Guide* with links to resources available by telephone and through Internet sites
- A cardboard baby book

The mothers recruited for the study had backgrounds similar to those of parents and children most commonly enrolled in First 5 programs.[2] [3] The majority were of Hispanic origin. The percentages of recruited mothers who were Caucasian, African-American, and Asian and Pacific Islander were also similar to the percentages of children of these backgrounds commonly enrolled in First 5 programs.

Approximately half of the mothers chose to receive a pilot *Kit* in English, while the other half chose one in Spanish. A substantial number of the mothers were from underserved populations with typically less access to health care and parenting information than parents with higher education and income:

- About two-thirds were enrolled in Medi-Cal
- More than one out ten were teen mothers
- Over half had a yearly household income of less than $30,000

2 First 5 California: 2002–2003. (2004). Annual Report. Sacramento: CA.

3 A full account of the demographic characteristics of mothers completing initial questionnaires and follow-up interviews is contained in: Neuhauser, L., Syme, S.L., Constantine, W., Sokal-Gutierrez, K., Obarski, S., Constantine, N., Clayton, L., Desai, M., Sumner, J., Gupte, S., Albright, V (*December 2003*). ***Long-Term Evaluation Results For The Kit For New Parents.*** University of California, Berkeley, Center for Community Wellness.

As shown in the chart below, interviews with mothers who received a pilot *Kit* and with mothers who did not were conducted at three points in time: initially when they were recruited, 6–9 weeks later, and at a 14-month equivalent interview.

FIGURE 1: IMPACT STUDY DESIGN

Pilot *Kit* mothers	**Non-*Kit* mothers**
Initially 542 mothers agreed to be in the study, completed an initial questionnaire, and received a pilot *Kit*. About half of the mothers received a *Kit* before their child was born. About half received a Spanish *Kit*. *Kit* mothers answered eight questions about key parenting issues.	**Initially** 1236 mothers who did not receive a *Kit* were recruited from similar programs and completed initial questionnaires. Non-*Kit* mothers answered the same eight questions about key parenting issues.
Pilot *Kit* mothers' and non-*Kit* mothers' initial answers were statistically compared.	
6–9 weeks later 462 (85%) completed a follow-up telephone interview. They answered questions about their use of and satisfaction with the pilot *Kit*. In addition, they answered the same eight knowledge questions asked initially.	**6–9 weeks later** 1011 (82%) completed a follow-up telephone interview. Non-*Kit* mothers also answered the same eight knowledge questions asked initially.
Changes in knowledge for the core eight questions were statistically compared for those *Kit* and non-*Kit* mothers who completed both an initial and 6–9 week interview.	
At the 14-month equivalent interview 350 (65%) completed another follow-up interview. Their babies were between 10–20 months of age at that time. They answered additional questions about their use of and satisfaction with the pilot *Kit*. In addition to the core eight questions, *Kit* mothers were asked more comprehensive questions about their parenting knowledge, attitudes and practices.	**At the 14-month equivalent interview** To have an equivalent group at that time, we asked the 1011 non-*Kit* mothers who participated in the 6–9 week follow-up to refer mothers with older babies in their communities to participate in the study. 414 of the referred mothers with babies 10–20 months of age completed the interview. In addition to the core eight questions, the referred mothers were asked the same set of comprehensive questions about their parenting knowledge, attitudes and practices.
Changes in *Kit* and non-*Kit* mothers' core knowledge between the 6–9 week and 14-month follow-up interviews were statistically compared.	

While the primary analyses were focused on changes in knowledge, secondary analyses were conducted to compare responses of pregnant women with those of mothers who had given birth, to compare responses of Spanish speakers with those of English speakers, and to see if the amount a family used the *Kit* impacted the mother's knowledge gains over time.

We also conducted an analysis to see if mothers who received a *Kit* were more likely to participate in the six-to-nine week follow-up interview than mothers who did not receive a *Kit*. We found that mothers' attrition was not significantly associated with receiving a *Kit*. When we compared *Kit* mothers who completed a 14-month interview with those who did not, we found that mothers who stayed in the study had a slightly higher (2%) initial knowledge score than those who dropped out. Although the 2% difference in the initial knowledge scores was statistically significant, this difference was not great enough to modify the study's conclusions.[4]

The Process Evaluation

Statewide Survey: The interview for the statewide survey included closed-ended questions to determine *Kit* distribution practices, *Kit* customization, *Kit* training, and use of the First 5 website in each county. The interview also included open-ended questions to determine the challenges and best practices related to *Kit* distribution, local training, and *Kit* customization, as well as to obtain descriptions of any local evaluation efforts and recommendations for changes to the *Kit* materials.

10-County In-Depth Study: In the spring of 2003, 10 counties were selected to participate in this qualitative study with the goal of including both urban and rural areas in the northern, mid, and southern regions of California: Humboldt, Imperial, Los Angeles, Napa, Placer, Sacramento, San Bernardino, Santa Barbara, San Francisco, and Tulare. Counties were also selected if their local First 5 commission distributed the *Kit* to diverse parents in one or more of the following types of programs:

- Women, Infants and Children (WIC) programs
- Healthcare programs
- Childcare programs
- Programs that serve families with special needs

Depending upon the types of programs in which the *Kit* was distributed within each of the selected 10 counties and the availability of program staff to participate

4 Further information on the non-response analysis are contained in Appendix B of Neuhauser, L., Syme, S.L., Constantine, W., Sokal-Gutierrez, K., Obarski, S., Constantine, N., Clayton, L., Desai, M., Sumner, J., Gupte, S., Albright, V (*December 2003*). ***Long-Term Evaluation Results For The Kit For New Parents.*** University of California, Berkeley, Center for Community Wellness.

in the study, we identified two to four programs in each county in which to conduct focus groups. **Table 1** details the types of programs visited, and the number of interviews and focus groups conducted in each.

TABLE 1: INTERVIEWS AND FOCUS GROUPS IN EACH TYPE OF PROGRAM

Program Types	Number of Programs	Number of Administrator Interviews-	Provider focus groups		Parent focus groups	
			Number of Groups	Number of Individuals	Number of Groups	Number of Individuals
WIC	3	3	3	13	2	14
Healthcare	7	7	8	32	7	33
Childcare	7	7	7	25	7	58
Special Needs*	6	6	5	27	11	96
TOTALS	**23**	**23**	**23**	**97**	**27**	**201**

*Special needs includes programs for parents of children with disabilities or other special needs, incarcerated parents, foster parents and grandparents raising children.

Interviews with administrators typically lasted 30 minutes, and focus groups with providers and parents from 1 to 1.5 hours. Standardized interview and focus group protocols were followed. The focus groups with English speakers were moderated by members of the *Kit* evaluation team, and the focus groups with Spanish speakers were moderated by local consultants. At least one additional *Kit* evaluation team member assisted all focus group moderators. In sum, 23 administrators were interviewed, and 97 providers and 201 parents participated in the focus groups.

Detailed coding schemes were developed and tested for the administrator interviews and for the transcripts of focus group with providers and parents. The codes were entered into Microsoft Excel, and cross-site matrices were developed to facilitate comparison of results across program and respondent types.

Results

A) How did the state and the counties distribute the *Kit*? What were the challenges to effective distribution?

Kit distribution across the State

The *Kit* was formally launched in November of 2002. As of February 2004, more than one million *Kits* had been distributed statewide. Each county had a specific *Kit* allocation equal to the annual number of births in the county. *Kits* were also available through the statewide toll-free number and order postcards, with approximately 10% of the *Kits* in fiscal year 2002–2003 distributed through these methods. During this period, only three counties with small populations distributed their full *Kit* allocations. A short-term halt in *Kit* production in the spring of 2003 may have been partly responsible for not achieving higher distribution coverage across the State.

From the Statewide Survey, we learned that *Kit* distribution partners were chosen within each county by their local Commission. After selecting their initial partners, Commission staff in some counties recruited additional programs. These additional programs typically served populations that Commission staff believed would benefit from the *Kit* but would not be likely to receive a *Kit* through the initially selected distribution partners. Additionally, interested programs contacted the county commissions to request that they become a *Kit* distributor.

In the 10-County In-Depth Study, 19 of the 23 administrators interviewed reported that becoming a *Kit* distribution partner was either 'easy' or 'very easy.' About a third of these administrators had contacted their local commission in order to request becoming a distribution partner.

Kit customization

From the Statewide Survey conducted from November 2002–February 2003, we learned that nearly 75% of the counties across California were customizing the *Kit* by adding items. In 17 counties, the State's fulfillment office enclosed the

additional items, and in 26 counties, the items were enclosed locally. At the time the survey was conducted, four additional counties planned to begin customization soon. The other 11 counties did not plan to customize the *Kit*.

County Commission staff reported customizing the *Kit* by adding a variety of items, which included educational materials (e.g., local resource guides, a wheel showing expected child development at different age ranges, and the book "What to Do When Your Child Gets Sick") and baby products (e.g., infant oral health aids, childproofing materials such as electric outlet covers, and educational baby toys). Staff decided what to add to the *Kit* in a variety of ways, based on the recommendations of commission staff members, advisory committees, distribution partners, and experts. The cost of the materials varied greatly, with some counties spending $1 per *Kit* to add materials while others spent $15 or more per *Kit*. Many commission staff expressed interest in finding out how other counties were customizing the *Kit*, and thought that coordination with other counties could lead to successful negotiation for lower prices for customization items.

Programs that distributed the *Kit*

Results from Statewide Survey showed that most counties distributed the *Kit* through multiple programs. Almost all counties reported distributing the *Kit* through home visits (including both pre- and post-natal visits). The *Kit* was also commonly distributed in prenatal clinics, teen parenting classes, other parenting classes, childcare centers, WIC centers, hospitals, and pediatricians' offices. Some programs with inadequate facilities for *Kit* storage gave parents the toll-free telephone number in lieu of direct *Kit* distribution.

Innovative practices

In the 10-County In-depth Study, we learned of a variety of innovative ways the *Kit* was used across the state. The *Kit* was used to gain entrée when conducting home visits, and as a key part of the family life/parenting curriculum in an alternative high school for teen mothers. The *Kit* was also distributed in a father's group on nutrition and other parenting issues, a half-way house program for incarcerated mothers, and a program for farm laborers.

Distribution challenges

In the Statewide Survey, staff in nearly 70% of the counties reported that they had some shipments of *Kits* sent to their county commission office for later shipment to distribution partners. Commission staff in most counties also reported that shipments of *Kits* were being sent from the state's fulfillment office directly to their major distribution partners. Overall, delays in receiving *Kits* from the state fulfillment office were the largest problem reported. Other problems included not being notified of upcoming deliveries and inconsistent shipment patterns. Staff suggested that delivery of *Kits* on the same day of each month would help them plan for receiving shipments. Commission staff also stated that having regular, ongoing contact with the fulfillment office and with distribution partners would be important for effective distribution.

One suggestion for improving this process was to implement an on-line system to order and track *Kits*. Another recommendation was to use a statewide commercial service such as UPS or the United States Postal Service for *Kit* delivery. It was thought that these commercial services would be more reliable and would facilitate order tracking.

Based on the results from this study and other data, First 5 has already made a number of important changes to the *Kit* distribution system. These include a new *Kit* distribution contractor, on-line ordering capacity, and next day delivery capacities.

Kit storage was not a major difficulty for most county commission offices. In the Statewide Survey, only 16% (9 of 58) of the county *Kit* coordinators reported that *Kit* storage was difficult or very difficult. Administrators of local programs distributing the *Kit* were more likely to report challenges with storage. In the 10-County In-Depth Study, over 50% of the agency administrators interviewed found *Kit* storage difficult or very difficult. Private healthcare providers such as obstetricians and others in small programs, for example, have very limited space for *Kit* storage. Some healthcare providers had recently ceased distributing or planned to stop distribution because of storage issues.

In addition to targeting *Kit* distribution to families with children within specific age ranges, 19 county *Kit* coordinators reported other eligibility requirements for programs to distribute *Kits*. Six counties reported that they only distribute *Kits* through prenatal programs. Eleven counties required that *Kits* be distributed to pregnant mothers or new mothers with children younger than one year. Two counties distributed the *Kit* solely through birthing hospitals.

In the 10-county In-Depth Study, we learned that most agencies distributed *Kits* widely among the parents they served. A few agencies, however, had limited supplies of *Kits,* and distributed them only to those parents believed most vulnerable or at risk. At various agencies, these included teen mothers, parents who had many questions on the care of young children, or parents that providers observed having difficulty disciplining their children when visiting the program site.

Introduction of the *Kit* to parents

Seventy-eight percent of the mothers participating in the Impact Study reported that someone opened the pilot *Kit* box and showed them what was inside. The Impact Study showed that mothers who were given this brief orientation used more of the informational *Kit* components in the intervening six to nine weeks than mothers who were given a *Kit* without orientation.

Parents appreciated a brief *Kit* orientation and believed it helped motivate them to use the *Kit*.

In over 60% of the focus groups in the 10-County In-Depth Study, providers reported opening the *Kit* box to show parents the contents, with most spending somewhere between five and 15 minutes orienting the parents to the *Kit*. Parents reported that it was helpful to have someone go through the *Kit* and show them the contents of the box, and believed that they might not have been as likely to use the *Kit* if they had not received this orientation.

Provider training and recommendations

James Bowman and Associates (JBA) conducted 10 regional *Kit* trainings. In the Statewide Survey, most (49) county commission staff reported that one or more persons from their county participated in their region's training. Although county commission staff generally found the JBA training helpful, some believed that the training was more appropriate for local distribution partners. Others believed that the JBA training was delivered too late, after their commission had already implemented the strategies that were presented in the training.

Less than half (19) of the county commission staff held or participated in additional local trainings within their county. Local trainings, when held, were generally 45 minutes to 2 hours in length. Many were abbreviated versions of the JBA trainings.

In the 10-County In-Depth Study, only a third (23) of the program administrators interviewed reported that they had attended a training session about the *Kit*. Those that attended generally found the training helpful. The remaining two-thirds of the administrators were asked if it would have been helpful for staff to attend a *Kit* training, and most responded affirmatively. Many of these administrators volunteered that they had not been aware of the JBA regional training sessions, although they had been employed at their agencies well before the sessions were held.

Administrators and providers recommended that First 5 provide additional *Kit* training materials in English and Spanish to help agencies train their staff on introducing the *Kit* to parents.

Providers in only a fifth of the 23 focus groups received training on the *Kit*. Most of those providers who had not received training believed that some in-service training on *Kit* distribution would be helpful. The in-service training envisioned by providers would include a group review of the *Kit*, a discussion on each of the *Kit's* components, and information about how to motivate parents to use the *Kit*. One provider said —

> ***"You can hand somebody this* Kit *and they're like, 'Okay, yeah, thanks.' But how do you find out what people are concerned about? Meet them where they're at?"***

Providers in some groups recommended that training include information on how and why the *Kit* was developed and the relevance of the *Kit's* information for all parents. Other specific requests included training on *Kit* distribution in a group setting, training on cultural sensitivity when distributing it to different populations, and on how to best communicate the *Kit* Information to parents from diverse backgrounds. Other suggestions included creating a short video or DVD segment designed to introduce the *Kit* to parents and providers and including in the *Kit* a one-page information sheet about its contents that would be appropriate for both parents and providers. A short video or DVD orientation to the *Kit* was also requested for parents to view in waiting rooms or classes. Finally, the need for training and training materials in Spanish was mentioned in both of the Spanish-speaking provider focus groups.

B) Did providers and parents use the *Kit* and find it helpful?

Use of the *Kit* by providers

In the 10-County In-Depth Study, administrators and providers reported that the *Kit* was a useful tool to enhance their existing programs. Almost all of the administrators reported that the *Kit* fit well within their existing program. Providers most frequently reported that the *Kit* reinforced or enhanced the agencies' parenting education messages, and facilitated discussion, particularly on more difficult issues such as discipline. Providers also stated that parents are more open to the information when it is comes from or is reinforced by neutral third party information like that in the *Kit.* One provider noted —

> ***"When a parent comes to you with questions about discipline, [the discipline video] also reinforces what you're telling them about how you're supposed to discipline your child. Then they go home and they can see that video. And it's like, 'Oh, she does know what she's talking about.' It's not just a personal opinion."***

Providers volunteered that in addition to assisting them in gaining entrée for home visits, the *Kit* also served as an incentive for parents to attend parent meetings. The *Kit* also provided answers to commonly asked client questions, thereby preserving time to provide other needed assistance.

Use of the *Kit* by parents

The Impact Study measured overall use of the pilot *Kit.* As shown in **Table 2**, in the first six to nine weeks after the *Kit* was received, most parents used at least one of the *Kit's* informational materials. (All *Kit* materials were counted as 'informational' except for the baby book.[5]) *Kit* use was significantly higher among Spanish-speaking parents.

Kit use was high: 87% of the mothers and 53% of their partners used the *Kit* in the first 6–9 weeks.

5 These *Kit* materials included the videos, brochures, and the Parent's Guide.

TABLE 2: USE OF THE *KIT* IN THE FIRST 6–9 WEEKS:

Group	*Kit* use in the first 6–9 weeks
All *Kit* mothers	87%
Spanish speakers	95%*
English speakers	82%*
Partners	53%
Spanish speakers	61%*
English speakers	43%*

*All Spanish/English differences significant at p<.01 (chi-square test).

In the first six to nine weeks, mothers and their partners had used between two and four informational components of the *Kit*. In the short term, mothers had used more informational parts of the *Kit* if a provider had introduced the *Kit* to them by showing them what was inside.

As shown in **Table 3**, between the six-to-nine week follow-up and the 14-month follow-up, parents continued to use the informational portions of the *Kit*. During this time interval, Spanish-speaking mothers and their partners were more likely than English speakers to have looked at the *Kit*.

TABLE 3: USE OF THE *KIT* BETWEEN THE 6–9 WEEK AND 14-MONTH FOLLOW-UPS:

Group	*Kit* use between the 6–9 week and 14-month follow-up interviews
All *Kit* mothers	60%
Spanish speakers	79%*
English speakers	44%*
Partners	35%
Spanish speakers	54%*
English speakers	20%*

*All Spanish/English differences significant at p<.01 (chi-square test).

By the 14-month follow-up, 47% of all mothers had shared their *Kit* with a relative (other than their partner) or with a friend. Spanish speakers (51% versus 43%) were more likely to have shared the *Kit* with friends and extended family than English speakers. One Spanish-speaking father described how the *Kit* affected him in this way —

"As a man and first-time father, I was completely unaware, closed off. The videos opened me up totally to my son. Now I know how to feed him, how to talk with him, how to play with him…everything like they show in the videos. And he's happy!"

Many parents shared the *Kit* with extended family members and others in the community.

In the 10-County In-Depth Study, parents also indicated that they used the *Kit* and enjoyed having a variety of media — video, resource guide, and brochures — to choose from when seeking information. Many parents described how they sat down and reviewed the *Kit* materials with their partners. Additionally, parents in most of the focus groups reported that the *Kit* had substantial reach beyond their immediate family, including caregivers, friends, and neighbors.

The *Kit's* helpfulness to parents

In the Impact Study's 6–9 week follow-up, many mothers commented about the *Kit's* usefulness in caring for their family and obtaining resources. For example, one mother said —

"The **Kit** *is very complete and offers phone numbers which you can save for future use."*

Parents found the *Kit* helpful for a broad range of family issues.

In the Impact Study's 14-month follow-up, parents were asked if the pilot *Kit* was helpful in relation to seven key parenting issues: child safety, learning, feeding, breastfeeding, smoking, and health care. As shown in **Table 4,** mothers reported the *Kit* helpful for an average of 3.8 of these seven issues:

- 76% found it helpful for child safety practices.
- 72% found it provided ideas on how to help their baby learn.
- 71% found it helpful for feeding their baby solid food.
- 58% found it helpful about breastfeeding.
- 43% found it helpful for issues about smoking.
- 35% found it helpful for issues around child health care.
- 21% found the pilot *Kit* helpful for issues around childcare.

TABLE 4: NUMBER OF ISSUES FOR WHICH THE *KIT* WAS REPORTED AS HELPFUL AT 14 MONTHS

Group	Number of issues (out of seven)	Statistical significance (two-tailed t-test)
All *Kit* mothers (*n*=350)	3.8	na
Mothers who received the *Kit* while pregnant (*n*=180) Mothers who received the *Kit* postnatally (*n*=170)	4.1 3.5	p<.01
Spanish speakers (*n*=170) English speakers	4.9 2.8	p<.01
Partner used the *Kit* at 14 months (n=124) Partner did not use the *Kit* at 14 months (*n*=211)	4.8 3.2	p<.01
Shared the *Kit* with others (*n*=163) Did not share the *Kit* (*n*=182)	4.2 3.5	p<.01
First-time mothers (*n*=168) Experienced mothers (*n*=182)	3.8 3.8	ns
Teen mothers (*n*=59) Mothers older than 20 (*n*=291)	3.8 3.9	ns

The *Kit* was most helpful for women who received the *Kit* while pregnant and for Spanish speakers. It was equally helpful for first time and experienced mothers, and for teen and older mothers.

na: Not applicable — only *Kit* mothers answered these questions; there was no comparison group in this analysis.
ns: Not significant

In the 10-County In-Depth Study, the material in the *Kit* on discipline was regarded as the most informative subject for parents.[6] Discipline was reported as highly informative to parents in 20 of the 23 provider focus groups, and in 26 of the 27 parent focus groups.

The next most frequently mentioned subject reported by both providers and parents as highly informative in the 10-County In-Depth Study was how to choose quality childcare (reported in 17 of the 26 provider focus groups and in 14 of the 23 parent focus groups). Helping children learn by playing, reading, talking, and singing, how to create safe environments, and feeding/nutrition (including breastfeeding and weaning) were also frequently mentioned by both providers and parents.[7]

6 The 10-County Study provided an important opportunity to examine the effect on parents of the *Kit's* messages on discipline, as the discipline video was not included in the pilot *Kit* used for the Impact Study.

7 For further information on subject areas reported as highly informative in the In-Depth 10-County Study, see Neuhauser, L., Syme, S.L., Constantine, W., Sokal-Gutierrez, K., Obarski, S., Constantine, N., Clayton, L., Desai, M., Sumner, J., Gupte, S., Albright, V (December 2003). ***Evaluation Results for the 10-County Study of the Kit for New Parents.*** University of California, Berkeley, Center for Community Wellness.

In the 10-County Study, parents in the 27 focus groups were asked which of the *Kit*'s components were most helpful. As shown in **Table 5**, the videos were cited in 23 of the 27 parent focus groups, followed by the Parent's Guide and brochures.

TABLE 5: MOST HELPFUL COMPONENTS OF THE *KIT* AS REPORTED BY PARENTS IN 27 PARENT FOCUS GROUPS[8]

***Kit* component**	**Number of parent groups where the *Kit* component was mentioned**
Videos[9]	23
Parents guide	15
Brochures	12

Participants in the 10-County Study also spoke of how the *Kit* served as a comprehensive source of information. As one provider said —

> ***"It pulls a lot of information together in one place."***

Parents commented on specific components as well —

> ***"There are a lot of things in the parents' guidebook. You know, a lot of 800 numbers, organizations that you can call that you can ask questions, and maybe get more information on."***

A formerly homeless mother of four said —

> ***"…That book [the Parent's Guide] is like a lifeline for me."***

The brochures received positive commentary, particularly for providing a convenient way to review topics one at a time during brief periods such as a bus ride or lunch break. Comments on the brochures also included —

> ***"My cousin gets the baby and throws her up in the air and catches her. So I looked in the brochures, and it showed me that it was dangerous. So I showed it to him, and I told him that it was dangerous for her because it can cause convulsions or even up to death. He understood, and he never did it again."***

8 Focus groups generally included parents with a range of opinion on which *Kit* components were most helpful, therefore, the numbers in Table 5 do not sum to the number of focus groups that were conducted (N=27).

9 The video that received the most positive comments in the focus groups concerned discipline, followed by the video concerning child safety.

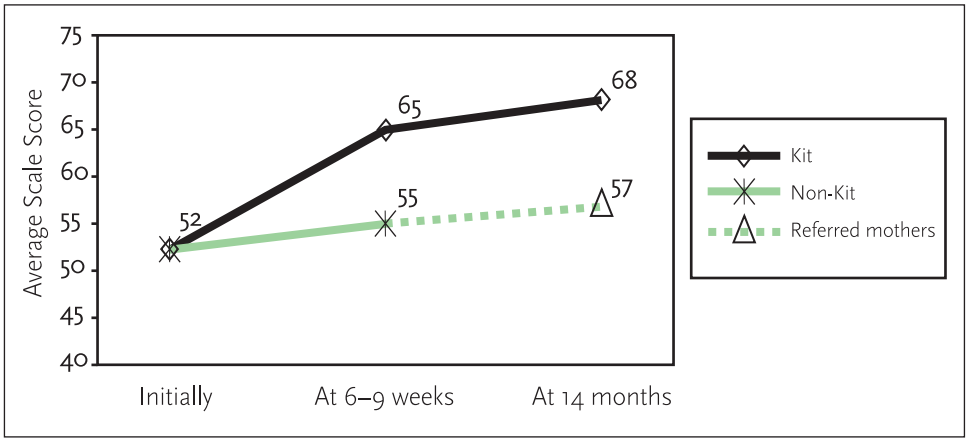
C) Did parents learn from the *Kit*?

Parents gained knowledge from the *Kit* across a broad range of issues, including child health, development, nutrition, and safety.

Results from the Impact Study: knowledge questions included in each of the three assessments

Eight core knowledge questions were included in the Impact Study's initial assessment, 6–9 week follow-up, and at 14 months. These questions asked parents about a broad range of issues addressed by the *Kit*, including health, development, nutrition, safety, childcare, and finding resources. A scale score was created to represent parents' knowledge across these eight key areas.[10] As shown in **Figure 2**, *Kit* mothers made greater gains in parenting knowledge than non-*Kit* mothers in the short term (13 points versus 3 points on the 100 point scale, statistically significant at p<.01). That difference was sustained over time — *Kit* mothers' scores remained 11 points higher at the 14-month follow-up (p<.01).

FIGURE 2: COMPARISON OF GAINS IN CORE KNOWLEDGE FOR *KIT* MOTHERS AND NON-*KIT* MOTHERS



Note: The dotted line from six-to-nine weeks to 14 months for the mothers not receiving the *Kit* illustrates that the 14-month score was measured for a different group of mothers who had not received a *Kit*.

10 For further information on the core knowledge scale and the comparison of its scores across the three assessments, see Neuhauser, L., Syme, S.L., Constantine, W., Sokal-Gutierrez, K., Obarski, S., Constantine, N., Clayton, L., Desai, M., Sumner, J., Gupte, S., Albright, V. (October 2002). ***Technical Report on the Time 1 to Time 2 Outcome Results.*** University of California, Berkeley, Center for Community Wellness.

Table 6 provides a summary of the results for each of these core knowledge questions included in the Impact Study's initial assessment, 6–9 week follow-up, and at 14 months.

TABLE 6: PERCENTAGES OF *KIT* AND NON-*KIT* MOTHERS CORRECTLY ANSWERING CORE KNOWLEDGE QUESTIONS

Core knowledge questions	Initially	At 6–9 weeks	At 14 months
1. If you or a friend wanted to quit smoking, would you know where to get help?	*Kit* 32% Non-*Kit* 34%	45%** 34%**	54% 48%
2. If you needed someone to take care of your baby, would you know where to look for a phone number to call to get a list of childcare providers in your area?	*Kit* 34% Non-*Kit* 32%	54%** 33%**	50%** 31%**
3. If you needed it, would you know where to go or call to sign up for free or low cost medical care for babies?	*Kit* 54% Non-*Kit* 54%	63%** 46%**	79%** 65%**
4. Newborns should be put to sleep on their backs.	*Kit* 65% Non-*Kit* 63%	78%** 67%**	66%** 53%**
5. The best way to feed a 2-month old is with breast milk only.	*Kit* 63% Non-*Kit* 67%	71% 71%	75% 70%
6. The best age to start feeding your baby cereal or solid food is four-to-six months old.	*Kit* 60% Non-*Kit* 61%	71% 69%	80%* 73%*
7. The best time to start reading to your child is during the first year.	*Kit* 71% Non-*Kit* 68%	84%** 76%**	83%** 72%**
8. The most important way for babies to learn is by playing with adults.	*Kit* 40% Non-*Kit* 38%	52%** 43%**	52% 45%

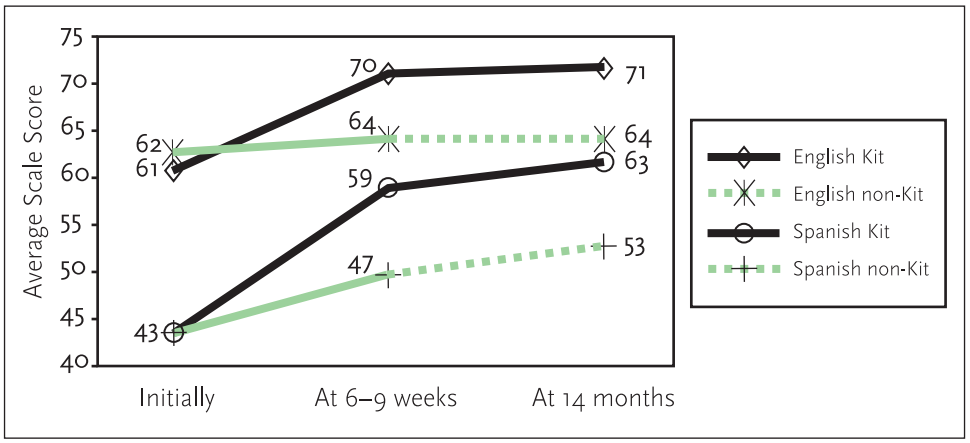
* Statistically significant difference, (chi-square, p<.05)
** Statistically significant difference, (chi-square, p<.01)

Greater knowledge gains were found for Spanish speakers.

At baseline, Spanish speakers had substantially lower core knowledge scores (18–19 points less) than English speakers. Yet at 14 months Spanish speakers who had received the *Kit* had closed the knowledge gap with English speakers who had not received a *Kit*, as shown in **Figure 3.**

Spanish-speaking women and women who received the *Kit* while pregnant made the greatest knowledge gains.

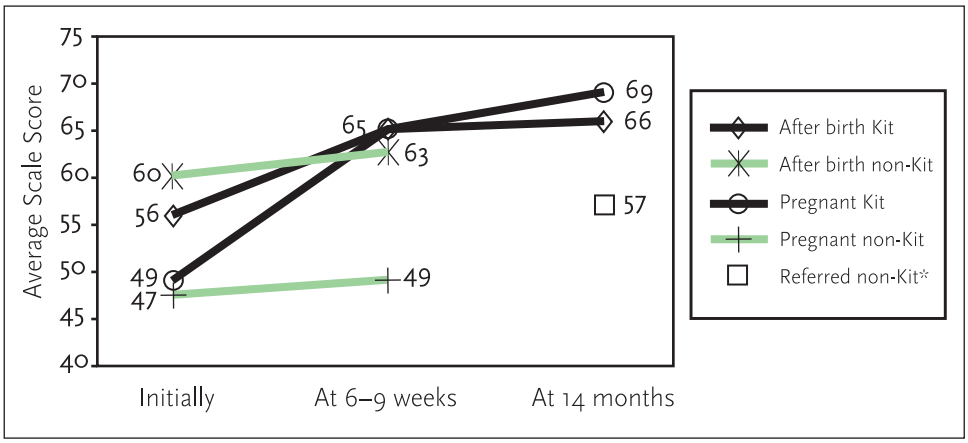
FIGURE 3: COMPARISON OF GAINS IN CORE KNOWLEDGE BY LANGUAGE



Greater knowledge gains were found for pregnant women.

As shown in **Figure** 4, at baseline, pregnant women had a substantially lower level of core knowledge (9–13 points less) than women who had given birth. Yet at the 6–9 week follow-up, the women who had received the *Kit* while pregnant had gained 16 points. Thus earlier in the perinatal period, pregnant *Kit* women were able to achieve a level of knowledge equivalent to women who had given birth, and these knowledge benefits were maintained at the 14-month follow-up. Knowledge gains by the 6–9 week follow-up for non-*Kit* pregnant women were minimal — their average score increased by only 2 points.

FIGURE 4: COMPARISON OF GAINS IN CORE KNOWLEDGE BY PRENATAL VERSUS POSTNATAL RECRUITMENT



*Note: The average score of 57 next to the box in the figure represents 14-month score for the referred group of 414 non-*Kit* mothers with babies 10–20 months of age, for whom the pregnant versus after birth distinction does not apply.

Greater gains were found with higher family use of the Kit.

Kit mothers' short-term and long-term knowledge gains were higher when they and their partners used more of the pilot *Kit*'s informational components. Family use of the *Kit* appeared to have a cumulative effect on knowledge gains — the greatest gains were achieved if both parents used the pilot *Kit*, if they used more components of the *Kit*, and if they used the *Kit* over time.

To consistently rate a mothers' and her partners' long-term use of the *Kit*, a composite family *Kit* use score between zero and four was created to establish a range of family *Kit* use for both follow-up periods.[11] *Kit* mothers' knowledge gains from the initial interview to the 14-month interview were viewed in relation to those composite family *Kit* use scores. As shown in **Table** 7, as composite family *Kit* use increased, knowledge score gains increased ($p<.01$). In families where the mother and partner used the *Kit* during both time periods (composite score = 4), mothers' knowledge gain was highest over the 14-month period.

TABLE 7: FAMILY *KIT* USE SCORES COMPARED WITH MOTHERS' GAIN IN CORE KNOWLEDGE BY THE 14-MONTH FOLLOW-UP

Composite Family *Kit* use score	Average point gain in knowledge from initial interview to 14-month follow-up
0–1	7.2
2	11.3
3	16.1
4	19.8

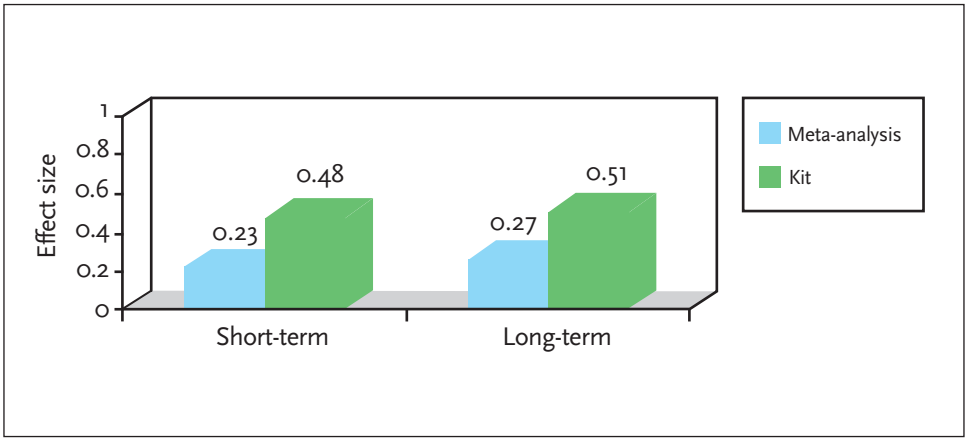
11 One point was assigned if the mother used any of the *Kit's* informational components before the six-to-nine week interview. A second point was added if her partner also used the *Kit* during that time. A third point was included if the mother used any informational component during the period between the first and second follow-up interviews, and a fourth point was added if her partner used the *Kit* during that time.

The short-term effect size for the *Kit* was 0.48, more than twice the average short-term effect size (0.23) from the studies included in the meta-analysis. This is particularly noteworthy in view of the *Kit*'s low cost of $17.50.

- ***The Kit results for the knowledge scale compare very favorably with the results of other studies.***

Layzer et al (2001) conducted a meta-analysis across 108 parenting intervention studies that measured changes in parenting knowledge and attitudes. As shown in **Figure 5**, the *Kit's* short-term effect size of 0.48 was more than twice the average short-term effect size (0.23) across the studies. The long-term effect size for the *Kit* was 0.51, almost twice as great as the average long-term effect size (0.27) from the other studies.

FIGURE 5: SHORT AND LONG-TERM EFFECT SIZES FOR THE *KIT* COMPARED TO A META-ANALYSIS OF 108 OTHER PARENTING INTERVENTIONS



Results from the Impact Study: knowledge questions included in the 14-month assessment only

Fourteen additional knowledge questions were included in the 14-month assessment. Of these fourteen questions, six showed significant differences between *Kit* and non-*Kit* groups, as shown in **Table 8**.

TABLE 8: ADDITIONAL KNOWLEDGE QUESTIONS WITH SIGNIFICANT DIFFERENCES AT 14 MONTHS

Knowledge questions	At 14 months	
Children's brains develop most rapidly when they are under three years old.	*Kit* Non-*Kit*	91%** 83%**
Holding and comforting a crying three-month old baby will not spoil the baby.	*Kit* Non-*Kit*	69%** 58%**
When feeding a one-year old dinner, it is best to let the baby decide what and how much to eat from the plate.	*Kit* Non-*Kit*	75%** 64%**
The most important thing when looking for good quality childcare for children under age two is caregivers who respond well to children.	*Kit* Non-*Kit*	75%** 62%**
If a child isn't walking by 18 months, it is best to call the doctor to ask for an exam.	*Kit* Non-*Kit*	82%* 75%*
Number of features to check out when choosing childcare.	*Kit* Non-*Kit*	3.0* 2.6*

*Statistically significant difference, (chi-square, p<.05)
** Statistically significant difference, (chi-square, p<.01)

Eight of the fourteen additional knowledge questions did not show significant differences between *Kit* and non-*Kit* mothers: whether cooked peas, mashed sweet potatoes, hot dogs, whole grapes, or shelled peanuts are safe for a one-year old to eat; whether it is OK to spank a one-year old who repeatedly bites another child; whether the best time to test a child's hearing is before the child is 6 months old, and how to find free services for a two-year-old with a speech problem.

Knowledge changes by topic area, combining findings from the Impact Study and the 10-County In-Depth Study

Parents gained important knowledge from the *Kit* about choosing childcare, and the *Kit* was useful to childcare providers as well.

Knowledge of quality childcare

As shown in **Table 6** above, in the Impact Study's 14-month interview, significantly more *Kit* mothers knew where to find a telephone number for a list of childcare providers in their area. As shown in **Table 8** above, at 14 months, significantly more *Kit* mothers than non-*Kit* mothers thought that "caregivers who respond well to children" was the most important thing to look for in quality childcare for children under age two. Also shown in **Table 8** above, *Kit* mothers cited significantly more things to look for in quality childcare than non-*Kit* mothers during the 14-month interview, although only a third of *Kit* mothers and non-*Kit* mothers had their babies in childcare more than 10 hours per week at that time.

From the 10-County In-Depth Study, we learned that both providers and parents frequently cited the *Kit*'s information on childcare as helpful. After discipline, this was the subject most frequently cited. In our seven focus groups with childcare providers, we learned that the *Kit* had been informative to them as well, and had served as an incentive to involve parents to participate in discussions and other activities. One provider said —

> ***"We had been working with a parent because we've had some real discipline issues with the child. The* Kit *was helpful in getting on the same page with the parent on how to respond to that child."***

Kit Parents learned the importance of activities with babies that build relationships and readiness to learn, such as playing, reading, talking, and singing.

Positive relationships with children

In the Impact Study, we found that *Kit* mothers knew more about ways to promote positive parent-child bonding or attachment than mothers who did not receive a *Kit*. As shown in **Table 6** above, there were significant differences for *Kit* and non-*Kit* mothers for two attachment-related questions (the best time to start reading is during the first year, and the most important way for babies to learn is by playing with adults). As shown in **Table 8** above, there were significant differences between *Kit* and non-*Kit* mothers for three additional attachment-related questions asked in the 14-month assessment (children's brains develop most rapidly when they are under three years old; comforting a crying 3-month old will not spoil the baby; and it is best not to force a one-year old to eat).

The 10-County In-Depth Study revealed that both providers and parents believed that the *Kit* promoted attachment bonds between children and their caretakers. Both providers and parents believed that the *Kit* increased parents' knowledge on "helping children learn" through playing, reading, talking, and singing to their young infants.

Parents in the 10-County In-Depth Study frequently commented that before they reviewed the *Kit*, they did not know that it was important to interact with very young babies. For example, one mother commented —

> ***"It taught me the way I could connect with her, and bond with her, so she grows up better."***

Parents also commented that by sharing the *Kit*, other family members helping to care for babies learned this as well.

Information on children with disabilities or other special needs

In the Impact Study's 14-month interview, three questions were included to explore the adequacy of the *Kit's* level of information on special needs. As shown above in **Table 8**, higher percentages of *Kit* mothers (82%) than non-*Kit* mothers (75%) said they would call the doctor if a child wasn't walking by 18 months ($p<.05$). However, only about half of both *Kit* and non-*Kit* mothers knew that the best time to test a child's hearing was before the child was 6 months old, and only a quarter of *Kit* mothers and non-*Kit* mothers said they knew how to find free services for a two-year-old with a speech problem.

The *Kit* would benefit from additional information for parents on how to recognize normal development and developmental delays, and on raising children who have special needs.

The 10-County In-Depth Study included 5 focus groups with providers and 11 with parents or other caretakers of children with disabilities and special needs. Sometimes, the special needs faced by the children included disabilities. Other children were at risk for social and emotional problems due to difficult family situations. These included being raised by:

- Parents involved in on-going custody disputes or incarceration,
- Foster or grandparents because of their parents' substance abuse.

The *Kit* does not fully meet the informational needs of caretakers of children at risk due to difficult custody and family situations.

In the four groups about raising children with disabilities, providers and parents cited the need for much more information, including early identification and intervention for developmental delays. Also parents wanted to see more families with children with disabilities in the *Kit* videos and in the photos. At the same time, these parents were aware that the *Kit* was designed for the general public, and therefore the information on special needs would be limited.

Many of the caretakers in custody-related groups (e.g., grandparents and foster parents) were raising children born to parents using drugs and/or alcohol. These groups in particular wanted more information and resources for caring for substance-exposed children.

D) Did parents make positive changes in their practices because of the *Kit*?

14-Month Practice Results from the Impact Study

Table 9 provides a summary of the questions regarding parenting practices (included only in the 14-month assessment) for which there were significant differences between *Kit* and non-*Kit* mothers.

TABLE 9: PARENTING PRACTICES WITH SIGNIFICANT DIFFERENCES AT 14 MONTHS

Practices	At 14 months	
Average number of childproofing steps reported	*Kit* Non-*Kit*	2.8** 2.4**
Frequency of reading scale[12]	*Kit* Non-*Kit*	4.0** 3.7**
Well-child health care scale[13]	*Kit* Non-*Kit*	91** 87**
Safe bottle scale[14]	*Kit* Non-*Kit*	93* 91*

* Statistically significant difference, (chi-square, p<.05)
**Statistically significant difference, (chi-square, p<.01)

Practice questions for which there were similar rates for *Kit* and non-*Kit* mothers at the 14-month assessment included rate of breastfeeding initiation, breastfeeding duration, age at which solid foods were introduced, safe crib practices, frequency of talking aloud to their baby during everyday activities, and having a regular bedtime routine for their baby.

12 The scores for the reading scale ranged from one for "rarely or never" to five for "every day."

13 The 100-point well-child health care scale included three questions: 1) whether mothers had information on hand regarding when shots are due, 2) whether mothers had a single place for the baby's medical care, and 3) whether they had a consistent health care provider at that health care site.

14 The 100-point safe bottle scale summarized results for questions on avoiding four unsafe bottle practices: 1) heating up a bottle in the microwave, 2) propping the bottle so the baby could feed alone, 3) putting the baby to bed with a bottle, and 4) putting cereal in the bottle.

Practice changes from the Impact Study and from the 10-County In-Depth Study by topic area

Kit parents were more likely to follow safe feeding practices and propped the bottle less frequently to feed their baby.

Feeding practices

As shown in **Table 9** above, *Kit* mothers reported healthier bottle-feeding practices than non-*Kit* mothers in the Impact Study's 14-month interview. One of the four items in the bottle-feeding scale was about propping bottles, an important issue for both attachment and dental health. *Kit* mothers were more likely than non-*Kit* mothers to say that they rarely or never propped the bottle to feed their baby (81% versus 71%, $p<.05$).

In the 10-County In-Depth Study, parents reported changes in their feeding practices as a result of the *Kit*. Changes reported included: 1) warming bottles without the microwave, 2) not mixing cereal with formula or breast milk in a bottle, 3) starting solid foods at the appropriate ages, and 4) not feeding a baby whole grapes. For example, one mother said —

> ***"I watched that [Healthy Baby video]. I used to put her bottles in the microwave, but now I run them under water — hot water. And to cool them down I run it under cold water."***

Kit parents read to their babies more often.

Reading

As shown in **Table 9** above, *Kit* mothers read more often to their babies than non-*Kit* mothers. Additionally, more *Kit* mothers (49% versus 38%) reported reading or looking at books with their baby every day ($p<.01$). This difference was greatest when comparing rates between Spanish-speaking *Kit* and non-*Kit* mothers. One mother stated —

> ***"My daughter fell in love with that book [in the* Kit*]. It got her interested in books and now she loves all books."***

Health care

Kit parents were more likely to have a regular medical care provider for their child and to take extra steps to childproof their homes.

Kit mothers were more likely than non-*Kit* mothers to report that their baby had a consistent health care provider at their usual care site (98% versus 90%). Many parents also reported learning about the importance of well-baby medical visits, staying up-to-date on immunizations, and advocating for their child's health care. One mother commented —

> ***"It helped me know what questions to ask, like if his weight or size or head growth is okay. Also, if I see something strange, to ask to make sure it's okay. To know when the shots are due and the reactions they might have."***

Childproofing

As shown in **Table 9** above, *Kit* mothers reported taking significantly more steps to childproof their homes than non-*Kit* mothers (2.8 for *Kit* mothers, versus 2.4 for non-*K*it mothers, p<.01). Spanish-speaking mothers who received a *Kit* reported taking significantly more steps to childproof their home than Spanish speakers who did not receive a *Kit* (2.3 steps versus 1.8 steps, p<.01). One mother commented —

> ***"It gave us ideas so we bought covers for the plugs, a gate so he won't get out, and a lock on the bathroom toilet so he won't fall inside. Before buying a crib, I made sure the gaps were not too wide for his head to fit and get hurt. And we also keep the buckets open side down so he won't fall in. These ideas I got from the* Kit. *When you just hear about it, you don't really pay attention to it. But once you see it, you pay more attention to it."***

Positive relationships

In the 10-County In-Depth Study, when asked about *Kit* subjects that were most useful in making decisions for their family, discipline was cited in all but one focus group. In 12 of the 26 focus groups in which discipline was mentioned, parents specifically said that the *Kit* was very effective in demonstrating to parents how to use new discipline techniques by modeling alternatives to corporal punishment in the video footage. Additionally, in nine of these 26 groups, parents talked about how the *Kit* modeled good alternatives to yelling at young children. Their statements included —

> ***"You need to be the one in control. They can throw their temper tantrums. They can get angry. On our end we have to be the one that's not going to turn this into a power struggle every time we communicate. So that's what I got [from the* Kit*], and that's something that Dr. Brazelton reinforced."***

Additionally parents in some of the focus groups said that the *Kit* helped them to reach consensus with their partners about how to discipline their children. As one mother indicated —

Kit parents reported more father involvement and more frequent use of appropriate discipline techniques.

> ***"[My husband and I] sat down and watched the discipline [video]. That was the main thing, because he used to always be constantly yelling and screaming. It would give me a headache just listening to him yell and scream at the boys. So I had him sit down and watch that one, and it helped. I noticed a big change."***

In the five Spanish-speaking focus groups, one key issue was very prominent — the *Kit* helped increase father's involvement with the child. Some mothers noted that the fathers were much more helpful with the baby and the housework after reviewing the *Kit* contents. A mother noted —

> ***"Before, I used to go to the doctor by myself. Now he would ask me, 'Would you like me to go with you? Let's find out about the vaccination…."***

Parents also mentioned that the *Kit* provided other caregivers with information that helped build positive relationships with their infants. For example, when speaking of the changes in her mother-in-law after she reviewed the *Kit,* one mother said —

> ***"She's changed different ways of taking care…she is more interactive with the kid. She'll go and pick it up now, instead of just letting it sit and cry."***

Parents also reported that after reviewing the *Kit,* other caregivers of their children used more appropriate discipline rather than spanking.

E) Did the *Kit* enhance parents' emotional well-being and confidence in parenting?

In the Impact Study's 14-month interview, mothers were asked to think back to how they felt during the first four weeks of their baby's life. Most *Kit* and non-*Kit* mothers said they hardly ever or only sometimes felt sad, depressed, or anxious. Mothers were also asked a series of five questions about their emotional well-being during the past month.[15] There was no difference in the level of well-being reported by *Kit* and non-*Kit* mothers. *Kit* and non-*Kit* mothers also reported similar levels of confidence in what they knew about babies. Finally, mothers were also asked how often they had been able to find the information they needed if they had a question about parenting. There were non-significant differences in the percentages (69% versus 63%) of *Kit* and non-*Kit* mothers who reported they were able to find the information much or almost all the time.

While there were no explicit questions about emotional well-being in the 10-County In-Depth Study, participants addressed the issue indirectly. Parents frequently commented that they identified with the people featured in the videos and benefited as a result, in two respects:

- When they saw people parenting children the same way they did, they felt validated.
- When they saw people illustrating new ways of parenting, they felt empowered. They reported that it was easy to learn the new ways by following what was shown.

15 The five questions were "How much of the time during the past month have you: 1) been a very nervous person? 2) felt calm and peaceful? 3) felt downhearted and blue? 4) felt so down in the dumps that nothing could cheer you up? 5) been a happy person?

F) What would improve the *Kit* and its distribution?

Recommendations on ways the *Kit* program could be improved were collected in the Statewide Survey from county commission *Kit* coordinators and in the 10-County In-Depth Study from administrators, providers, and parents. The most frequently made suggestions are summarized below.

Recommendations 1) and 2) below resulted from the Statewide Survey and from the 10-County In-Depth Study. Recommendations 3) and 4) resulted from the 10-County In-Depth Study only.

1) Ensure that every new parent is offered a *Kit*

First 5 should consider ways to broaden distribution to ensure that every expectant parent and every parent of a child five or under in the state receives a *Kit*. Several ways to accomplish this include:

- Distribution of the *Kit* by First 5 through statewide groups that serve large numbers of pregnant women and parents of young children across the state, such as WIC, large HMOs, and family and juvenile courts,
- A statewide effort from First 5 asking county commissions to recruit a broader range of programs within their counties to distribute the *Kit*. This should include all providers serving pregnant mothers, all birthing hospitals, and a broader range of programs serving families with children up through age five, including center- and home-based childcare providers.
- A statewide request from First 5 to county *Kit* coordinators to assess whether their current program distribution partners could increase their *Kit* distribution if provided with an increased monthly allocation of *Kit*s.

2) Support *Kit* distribution and use over time

- Offer more training or training materials for providers that cover:
  - How the *Kit* was created, who it is for, and its purpose. (Providers believed that this information would help them better understand to whom to distribute the *Kit* and help them better introduce the *Kit* to parents.)

- Evaluation study results about parents use and benefit from the *Kit.*
- How to orient and motivate parents to use the *Kit*

- Produce a wall poster about the *Kit* in English and Spanish that could be mounted in agencies that distribute it. (An English-language poster has been produced by First 5; however, most providers are not aware of its availability)
- Include a laminated one-page information sheet in each *Kit* as an overview of the content for providers and parents.
- Create a laminated one-page information sheet for providers listing best practices for introducing the *Kit.*
- Reduce the size of the *Kit* box. (This suggestion was particularly important to administrators in programs with limited storage capacities.)
- Through public service announcements, print media, or letters, provide reminders to parents about how the *Kit* is helpful in caring for infants, toddlers and young children at various stages of development.

3) Provide more information in the *Kit*

(For each issue, we have noted the number of 10-County In Depth Study focus groups and administrator interviews in which the suggestion was made. Include more information on:

- Feeding and nutrition for infants and young children, including breastfeeding techniques and issues (10 parent and 4 provider focus groups).
- Development and how to recognize developmental delays, and parenting children with special needs (6 parent and 4 provider 4 focus groups, and 3 administrators).
- Fathers' roles in parenting babies and young children (8 parent and 2 provider focus groups).
- Effective discipline techniques for children at different ages, including a rationale and evidence to support the *Kit's* recommendations for alternatives to corporal punishment (7 parent focus groups and 1 administrator interview).
- Issues faced by parents who are young and who have few resources, including birth control (7 parent and 2 provider focus groups).

- Ways to effectively co-parent when custody is shared, for example, between single parents, and between parents and guardians (4 parent focus groups).
- Methods of toilet training (4 parent focus groups).
- Special issues faced by parents who have twins, triplets, etc. (4 parent focus groups).

4) Make the *Kit* more accessible

- Provide a DVD version of the *Kit*. (This was the most frequently made suggestion for *Kit* improvement among both parents and providers, and was mentioned in 13 parent and 6 provider focus groups, as well as 2 administrator interviews.)
- For the DVD version of the *Kit,* present the material now in the videotapes ordered by ages and developmental stages rather than by topics to help parents use the *Kit* both when first given out and over time.[16] [17] (7 parent and 6 provider focus groups, and one administrator interview).
- Produce *Kits* in a wider variety of languages, including Hmong.

16 Videos to be produced in Chinese, Vietnamese, and Korean will focus on three developmental stages: 0–1 year (pregnancy and infancy), 1–3 years (toddler) and 3–5 years (preschool).

17 Parents in several focus groups suggested including video footage of settings reflecting a wider variety of economic levels, so parents from diverse backgrounds might better identify with the situations depicted.

Discussion

The *Kit* for New Parents is a successful new model for large-scale parenting education

This study has documented that this low-cost parenting education initiative reached diverse new parents across the state, was used and valued by providers and parents, and was effective in improving parenting knowledge and practices. The short-term effect size for knowledge gains for the *Kit* was more than twice the short-term effect size across studies included in a recent meta-analysis of 108 parenting intervention studies. This is particularly remarkable considering the low cost of providing each family with the *Kit* ($17.50).

Prior research and theory helps explain the *Kit's* effectiveness

Our understanding of the success of the *Kit* is supported by current research and theoretical models, in particular, the conclusion that effective parent education builds on parents' needs, tailors the materials to engage and motivate parents, and works within parents' social environments. The *Kit* employs a variety of teaching modes — video, comprehensive written guide, subject-based brochures — that appeal to parents' different learning styles and reinforce the same messages in different ways. The *Kit* materials also provide a balance of hands-on information and emotional support, which helps enhance parents' motivation and self-efficacy. The videos may be particularly effective because they model *how* to do things such as breastfeeding, playing with and reading to your baby, disciplining your child, and childproofing your house. The key issue identified in research on promoting healthy child development and learning is helping parents and young children develop positive attachment. Positive attachment between very young children and their caregivers is consistently presented, modeled, and reinforced throughout the *Kit*.

A key feature of the *Kit* is that it serves as a resource for the family to use at home. Family members can use and review the different components, either privately or together, whenever they want or need them. Everyone can learn the same information from a respected source and work together to put it into practice (e.g., a consistent approach to feeding or discipline). Resources are listed for parents wanting further information or assistance on specific issues.

The *Kit* is most effective if received during pregnancy

In the Impact Study, mothers who received the *Kit* during pregnancy made greater knowledge gains than mothers receiving the *Kit* at birth or later. These evaluation findings suggest that First 5 should urge county commission staff to increase efforts to recruit distribution partners who serve pregnant women. Pregnancy is a time when parents are especially open to learning and making positive changes to benefit their baby. Expectant parents tend to have more time and energy to review educational materials before they have to deal with their baby's frequent needs. For many health practices such as quitting smoking and drinking, it is important for parents to learn about them and put them into practice during pregnancy to protect their baby's health. Likewise, parenting decisions that need advance deliberation and planning (e.g., deciding to breastfeed or finding infant childcare) are important to consider during pregnancy rather than waiting until after the birth. Finally, when parents receive the *Kit* prenatally, there are more opportunities for their health care providers to clarify any questions, reinforce the *Kit's* messages, and support parents' gains in knowledge and practices over time.

The *Kit* was especially effective for Spanish speakers

In the Impact Study, mothers who spoke Spanish made the greatest gains. Spanish speakers used the *Kit* the most, found the *Kit* most helpful, and experienced the greatest gains in knowledge and practices associated with the *Kit*. The Spanish version of the *Kit* was specifically developed to be culturally appropriate for Hispanic families. The lower literacy level of the *Kit's* written materials and the wealth of information in the videos helped ensure effective learning for families with limited educational backgrounds and/or literacy skills. Spanish speakers in the United States generally have less access to health information than English speakers and are eager for and appreciative of free, high quality information and resource listings in their language. Information on pregnancy and child rearing — traditionally an important part of the Hispanic culture — is likely to be particularly valued. Sharing of the *Kit* within Spanish-speaking families and the community helps reinforce the *Kit* messages and support positive changes within the context of the family and community. These evaluation findings support the First Five's current initiative to develop the *Kit for New Parents* in languages other than English and Spanish.

Conclusions

The evaluation found that the *Kit* is a low-cost, effective statewide investment to help parents promote their children's health, development, nutrition, and safety, and complements programs supported by First 5 county commissions.

High percentages of parents found the *Kit* helpful.

From the Impact Study, we learned that 87% of mothers and 53% of their partners used the *Kit* in the first 6–9 weeks. Between the 6–9 week and 14-month follow-up interviews, 60% of the mothers and 35% of their partners had used the *Kit,* and about half of the mothers shared the *Kit* with friends or family members. The *Kit* was equally helpful for first-time and experienced mothers, and for teenage and older mothers. Women who received the *Kit* during pregnancy and Spanish speakers gave the *Kit* the highest helpfulness ratings. In the 10-County In-Depth Study, parents reported many ways in which the *Kit* was helpful. The videos and Parents Guide received the highest ratings, and the discipline video received the most comments.

The *Kit* improved parents' knowledge on important early childhood issues.

Kit mothers surveyed for the Impact Study had significantly greater knowledge gains on a broad range of key issues that included child health, nutrition, development, safety, and childcare. Women who received the *Kit* during pregnancy and Spanish speakers made the greatest knowledge gains. At a far lower cost, the effect size of the *Kit*-related knowledge gain was more than double the average effect size of other parenting education programs studied in a recent comprehensive national review. Participants in the 10-County In-Depth Study reported knowledge gains in how to discipline, choose quality childcare, provide safety and good nutrition, and help children learn by playing, reading, talking, and singing.

Positive attitudes and parenting practices were associated with the *Kit*.

Mothers who received a pilot *Kit* were significantly less likely to believe that picking up and comforting a crying three-month-old will spoil the baby. Mothers who received a *Kit* were significantly more likely to read aloud to their baby every day, follow safe bottle practices, have a consistent health care provider for their child, and have taken more steps to childproof their home. 10-County In-Depth Study participants reported using more appropriate discipline techniques, and engaging in more productive discussions with partners, other family members, and providers regarding the care of their children.

Recommendations

Parents, providers, and county commission staff recommended ways to improve the initiative, including adding distribution partners to ensure that every new parent is offered a *Kit*, providing more trainings and training materials, producing a DVD format of the videos ordered by the child's developmental stage, and including additional content.

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